

California M E D I C I N E

OFFICIAL JOURNAL OF THE CALIFORNIA MEDICAL ASSOCIATION
© 1949, by the California Medical Association

VOL. 71

SEPTEMBER 1949

No. 3

Chemosurgery in Cutaneous Malignancy

FREDERIC E. MOHS, M. D., *Madison, Wisconsin*

SUMMARY

Chemosurgical removal of accessible cancer under microscopic control affords:

1. *Unprecedented reliability. "Silent" extensions may be followed out and eradicated.*
2. *Conservatism in removal of tissue. With microscopic examination of each layer of tissue removed, it is possible to avoid removing more than one or two millimeters of healthy tissue beyond the extent of the cancer.*
3. *Good cosmetic results in many instances.*
4. *Relative freedom from operative pain.*
5. *Possibly, lower incidence of metastasis.*
6. *Low operative mortality.*

THE term "chemosurgery" was coined to designate a newly-developed method for the excision of cancer under complete microscopic control. The "chemo" part of the word implies that the tissues are chemically treated, while the "surgery" part indicates that the tissues are surgically excised, but it should be emphasized that these features are merely contributory to the most important feature, the microscopic control.

The idea of a microscopically controlled method of excision had its origin in 1932 in an incidental observation made with Professor M. F. Guyer during the course of experiments on the leukocytic reaction to irritants in cancerous and normal tissues. One of the injected irritants happened to be a 20 per cent solution of zinc chloride. This chemical killed the tissues and yet, upon microscopic study, the histologic structures were observed to be well preserved. What

had happened was that the tissues had been fixed *in situ* the same as if they had been placed in a bottle of fixative solution. During the ensuing four years various details of the technique were worked out in the laboratory.²

Many different chemicals were tried as *in situ* fixatives. Some of them, such as the arsenic, mercury, and antimony salts, were found to be too toxic. Some, such as the caustic alkalies, caused excessive destruction of the tissues so that microscopic diagnosis was impaired. Other chemicals had other disadvantages. Zinc chloride proved to be the most favorable chemical tried because of the following advantages: (1) as used in the treatment of cancer it was essentially non-toxic systemically, (2) it penetrated the tissues readily and in a controllable manner, (3) it was safe to handle because it did not penetrate the intact skin, (4) it was nonodorous, and (5) healing of the tissues following its use was excellent. This chemical, it will be remembered, has long been used in the treatment of cancer both by ethical and unethical practitioners, but there was never any thought of microscopic control.

Various means of administration were tried in animal experimentation. Injection gave erratic penetration and it was found to be too dangerous in that many of the animals died immediately after injection. The application of solutions to the surface of the tumor resulted in poor and erratic penetration. The best means of administration proved to be the application of a paste which contained zinc chloride. The base mainly consisted of stibnite, an inert, finely granular material. This material held the solution of zinc chloride very loosely and allowed it to be released readily to the tissues. Moreover, the stibnite provided a highly permeable matrix, permitting the solution of zinc chloride to sink through the entire applied layer of paste. This in turn made it possible

Presented before the Section on Dermatology and Syphilology at the 78th Annual Session of the California Medical Association, May 10, 1949, in Los Angeles.

From the Chemosurgery Clinic, Department of Surgery, University of Wisconsin Medical School, Madison.

California M E D I C I N E

OWNED AND PUBLISHED BY THE CALIFORNIA MEDICAL ASSOCIATION
450 SUTTER, SAN FRANCISCO 8 PHONE DOUGLAS 2-0062

Editor, DWIGHT L. WILBUR, M.D.

Assistant to the Editor, ROBERT F. EDWARDS

Editorial Executive Committee

ALBERT J. SCHOLL, M.D., Los Angeles

H. J. TEMPLETON, M.D., Oakland

EDGAR WAYBURN, M.D., San Francisco

For Information on Preparation of Manuscript, See Advertising Page 2

EDITORIALS

Doctors and Lobbies

For many years the medical professional has held itself aloof from the crass business of lobbying legislative bodies. The very word "lobby" has set up a sordid picture in many medical minds and has caused doctors to shy away from the implication that a noble profession should stoop to any endeavor to influence legislation.

On the other hand, Mr. Webster and other lexicographers have long defined a lobby or the practice of lobbying in much more acceptable terms; the American people have long since recognized the practice of attempting to influence legislation as nothing more than the exercise of the privilege of petitioning the government which is specifically set forth in the Bill of Rights.

On August 16, 1949, a showdown on this subject was enacted in the U. S. Senate. It is a pleasure to report that the medical "lobby" won out.

Briefly, the President of the United States offered a plan of reorganization of certain executive departments of the government, in conformity with terms of a law passed by the Congress in 1946 and presumably in furtherance of one section of the Hoover Commission survey and recommendations. The President asked that the several governmental departments of health, education and social security be combined in a Department of Welfare, with its head a member of the Cabinet. (The Hoover Commission had recommended the establishment of a "United Medical Service organization as an independent administration reporting to the President, *instead of as a bureau of a department of health, education and security.*" [Italics by Ed.])

Despite the source of the presidential proposal, and despite the propagandistic appeals of the Committee for the Nation's Health and other well-wishers

that the President's program was following the Hoover Commission recommendations, it was obvious to some members of Congress that the plan was diametrically opposed to what Mr. Hoover and his unbiased commission of citizens had proposed.

The job of medicine, and the job which medicine undertook singlehanded, was to point out to the Senate how widely the President's proposal had missed the mark. In the eyes of the critics, that undertaking was a job of lobbying. (Of course, the propaganda *for* the President's proposal was not lobbying.)

When the chips were down, when the Senate roll was called, the vote was 60 to 32 against the President's proposal. The medical profession had been able to point out the fundamentals of the presidential scheme to that many Senators—and even to more, although some of them seemed to hold party considerations above other factors in the voting.

Thus ends one aspect of the President's reorganization program. And thus begins, it is to be hoped, the realization of some facts which have long been lurking around the corner, unrecognized by some. First, the authority of the President is not absolute but is subject to the will of the Congress, the elected representatives of the people. Second, that the truth can be made to prevail despite the high position of some who would distort it to their own ends.

Finally, the medical profession must by now have learned of its own strength and authority in the cause of truth and justice, when and if the profession decides to strap on its weapons and go out to do battle. This fight was won by the profession itself.

If this be lobbying, let us have more of it in the cause of sound scientific principles and in behalf of the people of our country.

CALIFORNIA MEDICAL ASSOCIATION

| | | | |
|---------------------------------------|-----------------|---|-------------------------------|
| R. STANLEY KNEESHAW, M.D..... | President | SIDNEY J. SHIPMAN, M.D..... | Council Chairman |
| DONALD CASS, M.D..... | President-Elect | L. HENRY GARLAND, M.D..... | Secretary-Treasurer |
| LEWIS A. ALESEN, M.D..... | Speaker | H. GORDON MacLEAN, M.D..... | Chairman, Executive Committee |
| DONALD A. CHARNOCK, M.D..... | Vice-Speaker | DWIGHT L. WILBUR, M.D..... | Editor |
| JOHN HUNTON, Executive Secretary..... | | General Office, 450 Sutter Street, San Francisco 8 | |
| ED CLANCY, Field Secretary..... | | Southern California Office, 417 South Hill Street, Los Angeles 13 | |

NOTICES AND REPORTS

Council Meeting Minutes

Tentative Draft: Minutes of the 364th Meeting of the Council of the California Medical Association at San Francisco, July 9, 1949.

The meeting was called to order by Chairman Sidney J. Shipman at 9:30 a.m., Saturday, July 9, 1949, in Room 210 of the St. Francis Hotel, San Francisco.

Roll Call:

Present were President Kneeshaw, President-elect Cass, Speaker Alesen, Vice-Speaker Charnock, Councilors Shipman, Anderson, Thompson, Green, Crane, Ray, Ball, Lum, MacLean and Frees, Secretary Garland and Editor Wilbur.

Absent (for illness or other cause): Councilors Pollock, Henderson, Montgomery, Bailey and Cherry.

Present by invitation: John Hunton, executive secretary; William P. Wheeler, assistant executive secretary; Howard Hassard, legal counsel; Ed Clancy, field secretary; Ben H. Read, executive secretary of the Public Health League of California; Dr. Edwin L. Bruck, former Councilor; Dr. Dwight H. Murray, chairman of the Committee on Public Policy and Legislation; Dr. John R. Upton, chairman of the Blood Bank Commission; Dr. Henry Gardner, secretary, and E. R. Paolini, auditor, of California Physicians' Service; Ned Burman, of public relations counsel; and county society executive secretaries Frank Kihm of San Francisco, Glenn Gillette of Fresno and Vance Venables of Kern County.

A quorum present and acting. On motion duly made and seconded, it was unanimously voted to send a message of encouragement to Councilor Pollock in his present illness.

1. *Minutes for Approval:* On motion duly made and seconded, it was voted to approve the drafts of minutes of the 359th to 363rd meetings of the Council, held in Los Angeles from May 7 to May 11, inclusive, 1949.

2. Membership:

(a) A report of membership as of June 30, 1949, was received and ordered filed.

(b) On motion duly made and seconded, 91 members whose 1949 dues had been received since May 11, 1949, were voted reinstatement as active members.

(c) On motion duly made and seconded, one member whose 1948 and 1949 dues had been received since May 11, 1949, was voted reinstatement as an active member for those years.

(d) On motion duly made and seconded in each instance, four applicants were elected to Retired Membership, as follows:

Lucius Belding Phelps, Orange County.
Charles R. Geith, Riverside County.
William A. Reckers, Sacramento County.
Ream S. Leachman, Solano County.

(e) On motion duly made and seconded in each instance, 13 applicants were elected to Affiliate Membership, as follows:

John R. Bryan, San Francisco.
Elizabeth Cuthbertson, San Francisco.
Frederick Kreutzer, San Francisco.
Harvey W. Kring, San Francisco.
Harold Davis, San Francisco.
Marshall J. Fiese, San Francisco.
Fernando Gomez, San Francisco.
Charles Gray, San Francisco.
Elizabeth Kremser, San Francisco.
Barbara Mullen, San Francisco.
Eugene Padel, San Francisco.
S. J. Polk, San Francisco.
Thomas C. Stevenson, San Francisco.

(f) On motion duly made and seconded in each instance, a reduction of dues in the amount of the formula previously adopted by the Council was granted to 12 applicants, as follows:

T. E. Bartholomew, Imperial.
Don S. Dryer, Los Angeles.
Joseph Gaster, Los Angeles.
Margaret Storkan, Los Angeles.
C. F. W. Kohlenberger, Orange.
David C. Tower, San Diego.
George O. French, San Luis Obispo.
Alice M. Lemanski, Santa Clara.
Stanley J. Lourdeaux, Santa Clara.